

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO		<i>Complete if Known</i>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Application Number</b>	10/693,429
		<b>Filing Date</b>	2003-10-23
		<b>First Named Inventor</b>	WALTON; J. Rodney. et al.
		<b>Art Unit</b>	2467
		<b>Examiner Name</b>	SMITH, MARCUS
<b>Sheet</b>	<b>1</b>	<b>of</b>	<b>20</b>
		<b>Attorney Docket No:</b> 030417	

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	01	US6847828	01-25-2005	MIYOSHI, et al.	
	02	US4750198	06-07-1988	HARPER; Donald J.	
	03	US4797879	01-10-1989	HABBAB; Isam M. I. et al.	
	04	US5241544	08-31-1993	JASPER; Steven C. et al.	
	05	US5295159	03-15-1994	KERPEZ; Kenneth J.	
	06	US5404355	04-04-1995	RAITH; Alex K.	
	07	US5471647	11-28-1995	GERLACH; Derek. et al.	
	08	US5506861	04-09-1996	BOTTOMLEY; Gregory E.	
	09	US5509003	04-16-1996	SNUJERS; Wilfred A. M. et al.	
	010	US5606729	02-25-1997	D'AMICO; Thomas V. et al.	
	011	US5638369	06-10-1997	AYERST; Douglas I. et al.	
	012	US5677909	10-14-1997	HEIDE; Carolyn.	
	013	US5729542	03-17-1998	DUPONT; Pierre B.	
	014	US5867478	02-02-1999	BAUM; Kevin Lynn. et al.	
	015	US5867539	02-02-1999	KOSLOV; Joshua L.	
	016	US5886988	03-23-1999	YUN; Louis C. et al.	
	017	US5959965	09-28-1999	OHKUBO; Tadatashi. et al.	
	018	US5982327	11-09-1999	VOOK; Frederick Werner. et al.	
	019	US6049548	04-11-2000	BRUNO; Ronald. et al.	
	020	US6084915	07-04-2000	WILLIAMS; Richard G. C.	

**EXAMINER SIGNATURE****DATE CONSIDERED**

\*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<i>Complete If Known</i>		
		<b>Application Number</b>	10/693,429	
		<b>Filing Date</b>	2003-10-23	
		<b>First Named Inventor</b>	WALTON; J. Rodney. et al.	
		<b>Art Unit</b>	2467	
		<b>Examiner Name</b>	SMITH, MARCUS	
<b>Sheet</b>	<b>2</b>	<b>of</b>	<b>20</b>	<b>Attorney Docket No:</b> 030417

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	021	US6131016	10-10-2000	GREENSTEIN; Lawrence Joel. et al.	
	022	US6141388	10-31-2000	SERVAIS; Frederic Henri. et al.	
	023	US6141567	10-31-2000	YOUSSEFMIR; Michael. et al.	
	024	US6144711	11-07-2000	RALEIGH; Gregory G. et al.	
	025	US6167031	12-26-2000	OLOFSSON; H.ang.kan Gunnar. et al.	
	026	US6178196	01-23-2001	NAGUIB; Ayman F. et al.	
	027	US6232918	05-15-2001	WAX; Mati. et al.	
	028	US6266528	07-24-2001	FARZANEH; Farhad.	
	029	US6278726	08-21-2001	MESECHER; David K. et al.	
	030	US6292917	09-18-2001	SINHA; Deepen. et al.	
	031	US6298035	10-02-2001	HEISKALA; Juha.	
	032	US6298092	10-02-2001	HEATH; Jr. Robert W. et al.	
	033	US6308080	10-23-2001	BURT; Donald G. et al.	
	034	US6314113	11-06-2001	GUEMAS; Philippe.	
	035	US6314289	11-06-2001	EBERLEIN; Ernst. et al.	
	036	US6330293	12-11-2001	KLANK; Otto. et al.	
	037	US6330462	12-11-2001	CHEN; Tao.	
	038	US6333953	12-25-2001	BOTTOMLEY; Gregory E. et al.	
	039	US6339399	01-15-2002	ANDERSSON; Soren. et al.	

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<i>Complete If Known</i>		
		<b>Application Number</b>	10/693,429	
		<b>Filing Date</b>	2003-10-23	
		<b>First Named Inventor</b>	WALTON; J. Rodney. et al.	
		<b>Art Unit</b>	2467	
		<b>Examiner Name</b>	SMITH, MARCUS	
<b>Sheet</b>	<b>3</b>	<b>of</b>	<b>20</b>	<b>Attorney Docket No:</b> 030417

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	040	US6346910	02-12-2002	ITO; Tei.	
	041	US6348036	02-19-2002	LOONEY; Christopher S. et al.	
	042	US6363267	03-26-2002	LINDSKOG; Jan. et al.	
	043	US6377812	04-23-2002	RASHID-FARROKHI; Farrokh. et al.	
	044	US6385264	05-07-2002	TERASAWA; Daisuke. et al.	
	045	US6452981	09-17-2002	RALEIGH; Gregory G. et al.	
	046	US6473467	10-29-2002	WALLACE; Mark. et al.	
	047	US6532225	03-11-2003	CHANG; Li Fung. et al.	
	048	US6532255	03-11-2003	GUNZELMANN; Bertram. et al.	
	049	US6532562	03-11-2003	CHOU; Philip A. et al.	
	050	US6574211	06-03-2003	PADOVANI; Roberto. et al.	
	051	US6574271	06-03-2003	MESECHER; David K. et al.	
	052	US6594473	07-15-2003	DABAK; Anand G. et al.	
	053	US6594798	07-15-2003	CHOU; Philip A. et al.	
	054	US6608874	08-19-2003	BEIDAS; Bassel F. et al.	
	055	US6611231	08-26-2003	CRILLY; Jr. William J. et al.	
	056	US6615024	09-02-2003	BOROS; Tibor. et al.	
	057	US6636568	10-21-2003	KADOUS; Tamer.	
	058	US6654590	11-25-2003	BOROS; Tibor. et al.	

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449-PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<i>Complete If Known</i>		
		<b>Application Number</b>	10/693,429	
		<b>Filing Date</b>	2003-10-23	
		<b>First Named Inventor</b>	WALTON; J. Rodney. et al.	
		<b>Art Unit</b>	2467	
		<b>Examiner Name</b>	SMITH, MARCUS	
<b>Sheet</b>	<b>4</b>	<b>of</b>	<b>20</b>	<b>Attorney Docket No:</b> 030417

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2(f) known</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	059	US6654613	11-25-2003	MAENG; Seung-Joo. et al.	
	060	US6668161	12-23-2003	BOROS; Tibor. et al.	
	061	US6683916	01-27-2004	SARTORI; Philippe Jean-Marc. et al.	
	062	US6690660	02-10-2004	KIM; Younglok. et al.	
	063	US6693992	02-17-2004	JONES; William W. et al.	
	064	US6697346	02-24-2004	HALTON; John. et al.	
	065	US6731668	05-04-2004	KETCHUM; John W.	
	066	US6735188	05-11-2004	BECKER; Donald W. et al.	
	067	US6738020	05-18-2004	LINDSKOG; Erik D. et al.	
	068	US6751187	06-15-2004	WALTON; Jay R. et al.	
	069	US6751444	06-15-2004	MEIYAPPAN; Palaniappan.	
	070	US6751480	06-15-2004	KOGIANTIS; Achilles George. et al.	
	071	US6760313	07-06-2004	SINDHUSHAYANA; Nagabhushana T. et al.	
	072	US6760388	07-06-2004	KETCHUM; John W. et al.	
	073	US6760882	07-06-2004	GESBERT; David J. et al.	
	074	US6771706	08-03-2004	LING; Fuyun. et al.	
	075	US6785341	08-31-2004	WALTON; Jay R. et al.	
	076	US6788948	09-07-2004	LINDSKOG; Erik D. et al.	
	077	US6792041	09-14-2004	KIM; Beong-Jo. et al.	
	078	US6795424	09-21-2004	KAPOOR; Samir. et al.	

**EXAMINER SIGNATURE****DATE CONSIDERED**

\*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. † Applicant's unique citation designation number (optional). ‡ See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. § Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). ¶ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \*Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. † Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<i>Complete If Known</i>	
				<b>Application Number</b>	
				10/693,429	
				<b>Filing Date</b>	
				2003-10-23	
				<b>First Named Inventor</b>	
WALTON; J. Rodney. et al.					
<b>Art Unit</b>		2467			
<b>Examiner Name</b>		SMITH, MARCUS			
<b>Sheet</b>	5	of	20	<b>Attorney Docket No:</b> 030417	

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2(f) known</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	079	US6801790	10-05-2004	RUDRAPATNA; Ashok N.	
	080	US6859503	02-22-2005	PAUTLER; Joseph J. et al.	
	081	US6862271	03-01-2005	MEDVEDEV; Irina. et al.	
	082	US6868079	03-15-2005	HUNT; Bernard.	
	083	US6873651	03-29-2005	TESFAI; Yohannes. et al.	
	084	US6879578	04-12-2005	PAN; Jung-Lin. et al.	
	085	US6879579	04-12-2005	MYLES; Andrew Frederick. et al.	
	086	US6885708	04-26-2005	THOMAS; Timothy A. et al.	
	087	US6888809	05-03-2005	FOSCHINI; Gerard Joseph. et al.	
	088	US6888899	05-03-2005	RALEIGH; Gregory G. et al.	
	089	US6920192	07-19-2005	LAROIA; Rajiv. et al.	
	090	US6920194	07-19-2005	STOPLER; Danny. et al.	
	091	US6940917	09-06-2005	MENON; Murali Paravath. et al.	
	092	US6950632	09-27-2005	YUN; Yu-Suk. et al.	
	093	US6952426	10-04-2005	WU; Geng. et al.	
	094	US6956813	10-18-2005	FUKUDA; Kunio.	
	095	US6956906	10-18-2005	TAGER; Wolfgang. et al.	
	096	US6963742	11-08-2005	BOROS; Tibor. et al.	
	097	US6965762	11-15-2005	SUGAR; Gary L. et al.	
	098	US6980800	12-27-2005	NOERPEL; Anthony. et al.	

**EXAMINER SIGNATURE****DATE CONSIDERED**

\*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. †Applicant's unique citation designation number (optional). ‡  
 See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. §Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). ¶  
 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. †Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. †Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND  
 TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.  
 If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<i>Complete If Known</i>		
		<b>Application Number</b>	10/693,429	
		<b>Filing Date</b>	2003-10-23	
		<b>First Named Inventor</b>	WALTON; J. Rodney. et al.	
		<b>Art Unit</b>	2467	
		<b>Examiner Name</b>	SMITH, MARCUS	
<b>Sheet</b>	<b>6</b>	<b>of</b>	<b>20</b>	<b>Attorney Docket No:</b> 030417

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	099	US6985434	01-10-2006	WU; Shiquan. et al.	
	0100	US6996380	02-07-2006	DENT; Paul Wilkinson.	
	0101	US7006464	02-28-2006	GOPALAKRISHNAN; Nandu. et al.	
	0102	US7020110	03-28-2006	WALTON; Jay Rod. et al.	
	0103	US7020490	03-28-2006	KHATRI; Bhavin S.	
	0104	US7023826	04-04-2006	SJOBERG; Sten. et al.	
	0105	US7031671	04-18-2006	MOTTIER; David.	
	0106	US7035359	04-25-2006	MOLNAR; Karl James.	
	0107	US7062294	06-13-2006	ROGARD; Roger. et al.	
	0108	US7072381	07-04-2006	ATARASHI; Hiroyuki. et al.	
	0109	US7072410	07-04-2006	MONSEN; Peter.	
	0110	US7072413	07-04-2006	WALTON; Jay R. et al.	
	0111	US7088671	08-08-2006	MONSEN; Peter.	
	0112	US7095709	08-22-2006	WALTON; Jay R. et al.	
	0113	US7099377	08-29-2006	BERENS; Friedbert. et al.	
	0114	US7103325	09-05-2006	JIA; Ming. et al.	
	0115	US7110378	09-19-2006	ONGGOSANUSI; Eko Nugroho. et al.	
	0116	US7110463	09-19-2006	WALLACE; Mark S. et al.	
	0117	US7113499	09-26-2006	NAFIE; Mohammed. et al.	
	0118	US7116652	10-03-2006	LOZANO; Angel.	

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<i>Complete If Known</i>		
		<b>Application Number</b>	10/693,429	
		<b>Filing Date</b>	2003-10-23	
		<b>First Named Inventor</b>	WALTON; J. Rodney. et al.	
		<b>Art Unit</b>	2467	
		<b>Examiner Name</b>	SMITH, MARCUS	
<b>Sheet</b>	<b>7</b>	<b>of</b>	<b>20</b>	<b>Attorney Docket No:</b> 030417

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	0119	US7120199	10-10-2006	THIELECKE; Jo. et al.	
	0120	US7133459	11-07-2006	ONGGOSANUSI; Eko N. et al.	
	0121	US7149239	12-12-2006	HUDSON; John E.	
	0122	US7149254	12-12-2006	SAMPATH; Hemanth.	
	0123	US7155171	12-26-2006	EBERT; Paul Michael. et al.	
	0124	US7158563	01-02-2007	GINIS; Georgios. et al.	
	0125	US7164669	01-16-2007	LI; Xiaodong. et al.	
	0126	US7187646	03-06-2007	SCHRAMM; Peter.	
	0127	US7190749	03-13-2007	LEVIN; Jeffrey A. et al.	
	0128	US7197084	03-27-2007	KETCHUM; John W. et al.	
	0129	US7200404	04-03-2007	PANASIK; Carl M. et al.	
	0130	US7206354	04-17-2007	WALLACE; Mark S. et al.	
	0131	US7224704	05-29-2007	LU; Xiaolin. et al.	
	0132	US7231184	06-12-2007	EILTS; Henry S. et al.	
	0133	US7238508	07-03-2007	LIN; Min. et al.	
	0134	US7242727	07-10-2007	LIU; Jung-Tao. et al.	
	0135	US7248638	07-24-2007	BANISTER; Brian C.	
	0136	US7248841	07-24-2007	AGEE; Brian G. et al.	
	0137	US7254171	08-07-2007	HUDSON; John E.	
	0138	US7260153	08-21-2007	NISSANI (Nissensohn); Daniel Nathan (Tel Aviv, IL)	

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449-PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<i>Complete If Known</i>		
		<b>Application Number</b>	10/693,429	
		<b>Filing Date</b>	2003-10-23	
		<b>First Named Inventor</b>	WALTON; J. Rodney. et al.	
		<b>Art Unit</b>	2467	
		<b>Examiner Name</b>	SMITH, MARCUS	
<b>Sheet</b>	<b>8</b>	<b>of</b>	<b>20</b>	<b>Attorney Docket No:</b> 030417

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	0139	US7260366	08-21-2007	LEE; Yong-Suk. et al.	
	0140	US7263119	08-28-2007	HSU; Yungping. et al.	
	0141	US7280625	10-09-2007	KETCHUM; John W. et al.	
	0142	US7283508	10-16-2007	CHOI; Sung-Ho. et al.	
	0143	US7289570	10-30-2007	SCHMIDL; Timothy. et al.	
	0144	US7292854	11-06-2007	DAS; Arnab. et al.	
	0145	US7298778	11-20-2007	VISOZ; Raphael. et al.	
	0146	US7308035	12-11-2007	ROUQUETTE; Ste. et al.	
	0147	US7327800	02-05-2008	OPREA; Alexandru M. et al.	
	0148	US7342912	03-11-2008	KERR; Adam B. et al.	
	0149	US7386076	06-10-2008	ONGGOSANUSI; Eko N. et al.	
	0150	US7392014	06-24-2008	BAKER; Matthew P. J. et al.	
	0151	US7403748	07-22-2008	KESKITALO; Ilkka. et al.	
	0152	US7421039	09-02-2008	MALAENDER; Laurence Eugene. et al.	
	0153	US7453844	11-18-2008	LEE; Siu Fai. et al.	
	0154	US7480278	01-20-2009	PEDERSEN; Klaus Ingemann. et al.	
	0155	US7548506	06-16-2009	MA; Jianglei. et al.	
	0156	US7551546	06-23-2009	MA; Jianglei. et al.	
	0157	US7551580	06-23-2009	DU CREST; Gilles. et al.	

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds of Documents of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<i>Complete If Known</i>	
		<b>Application Number</b>	10/693,429
		<b>Filing Date</b>	2003-10-23
		<b>First Named Inventor</b>	WALTON; J. Rodney. et al.
		<b>Art Unit</b>	2467
		<b>Examiner Name</b>	SMITH, MARCUS
<b>Sheet</b>	<b>9</b>	<b>of</b>	<b>20</b>
			<b>Attorney Docket No:</b> 030417

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2(f) known</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	0158	US7573805	08-11-2009	ZHUANG; Xiangyang. et al.	
	0159	US7606296	10-20-2009	HSU; Yungping. et al.	
	0160	US20020018453	02-14-2002	YU, Yao; et al.	
	0161	US20020044591	04-18-2002	LEE, Hyun-Woo; et al.	
	0162	US20020098872	07-25-2002	JUDSON, Bruce A.	
	0163	US20020122393	09-05-2002	CALDWELL, Richard J. ; et al.	
	0164	US20020181390	12-05-2002	MODY, Apurva N. et al.	
	0165	US20030002450	01-02-2003	JALALI, Ahmad; et al.	
	0166	US20030048856	03-13-2003	KETCHUM, John W. et al.	
	0167	US20030119452	06-26-2003	KIM, Sung-Hoon; et al.	
	0168	US20030139194	07-24-2003	ONGGOSANUSI, Eko N. et al.	
	0169	US20030153360	08-14-2003	BURKE, Joseph P. et al.	
	0170	US20030157954	08-21-2003	MEDVEDEV, Irina; et al.	
	0171	US20040037257	02-26-2004	NGO, Chiu Y.	
	0172	US20040047292	03-11-2004	DU CREST, Gilles ; et al.	
	0173	US20030235255	12-25-2003	KETCHUM, John W. et al.	
	0174	US20040087324	05-06-2004	KETCHUM, John W. et al.	
	0175	US20070177681	08-02-2007	CHOI; In-Kyeong et al.	
	0176	US20010031621	10-18-2001	SCHMUTZ; Thomas R.	
	0177	US20020018310	02-14-2002	HUNG; Tsan-Yao.	

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<i>Complete If Known</i>	
				Application Number	10/693,429
				Filing Date	2003-10-23
				First Named Inventor	WALTON; J. Rodney. et al.
				Art Unit	2467
				Examiner Name	SMITH, MARCUS
Sheet	10	of	20	Attorney Docket No: 030417	

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	0178	US20020041632	04-11-2002	SATO; Kazushi. et al.	
	0179	US20020057659	05-16-2002	OZLUTURK; Fatih M. et al.	
	0180	US20020085620	07-04-2002	MESECHER; David K.	
	0181	US20020085641	07-04-2002	BAUM; Kevin L.	
	0182	US20020105928	08-08-2002	KAPOOR; Samir. et al.	
	0183	US20020154705	10-24-2002	WALTON; Jay R. et al.	
	0184	US20020183010	12-05-2002	CATREUX; Severine E. et al.	
	0185	US20020193146	12-19-2002	WALLACE; Mark. et al.	
	0186	US20020196842	12-26-2002	ONGGOSANUSI; Eko N. et al.	
	0187	US20030078024	04-24-2003	MAGEE; David Patrick. et al.	
	0188	US20030095197	05-22-2003	WHEELER; Richard B. et al.	
	0189	US20030099306	05-29-2003	NILSSON; Johan. et al.	
	0190	US20030112745	06-19-2003	ZHUANG; Xiangyang. et al.	
	0191	US20030123389	07-03-2003	RUSSELL; Patrick Gene. et al.	
	0192	US20030125040	07-03-2003	WALTON; Jay R. et al.	
	0193	US20030139196	07-24-2003	MEDVEDEV; Irina. et al.	
	0194	US20030162519	08-28-2003	SMITH; Martin. et al.	
	0195	US20030202492	10-30-2003	AKELLA; Ramakrishna. et al.	
	0196	US20030202612	10-30-2003	HALDER; Bijit. et al.	

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. † Applicant's unique citation designation number (optional). ‡ See Kinds of Documents of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. § Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). ¶ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \*Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. † Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<i>Complete If Known</i>	
				<b>Application Number</b>	
				10/693,429	
				<b>Filing Date</b>	
				2003-10-23	
				<b>First Named Inventor</b>	
WALTON; J. Rodney. et al.					
<b>Art Unit</b>		2467			
<b>Examiner Name</b>		SMITH, MARCUS			
<b>Sheet</b>	11	of	20	<b>Attorney Docket No:</b> 030417	

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	0197	US20030206558	11-06-2003	PARKKINEN; Teemu. et al.	
	0198	US20030235149	12-25-2003	CHAN; Albert. et al.	
	0199	US20040042556	03-04-2004	MEDVEDEV; Irina. et al.	
	0200	US20040082356	04-29-2004	WALTON; J. Rodney. et al.	
	0201	US20040085939	05-06-2004	WALLACE; Mark S. et al.	
	0202	US20040156328	08-12-2004	WALTON; J. Rodney. et al.	
	0203	US20040176097	09-09-2004	WILSON; Fiona. et al.	
	0204	US20040179627	09-16-2004	KETCHUM; John W. et al.	
	0205	US20040198276	10-07-2004	TELLADO; Jose. et al.	
	0206	US20050047384	03-03-2005	WAX; Mati. et al.	
	0207	US20050111599	05-26-2005	WALTON; J. Rodney. et al.	
	0208	US20050128953	06-16-2005	WALLACE; Mark S. et al.	
	0209	US20050208959	09-22-2005	CHEN; Tao. et al.	
	0210	US20060077935	04-13-2006	HAMALAINEN; Jyri;. et al.	
	0211	US20060104196	05-18-2006	WU; Shiquan;. et al.	
	0212	US20060183497	08-17-2006	PARANCHYCH; David W. et al.	
	0213	US20010046205	11-29-2001	EASTON, Kenneth D. et al.	
	0214	US20020115473	08-22-2002	HWANG, Jong Yoon ; et al.	
	0215	US20050120097	06-02-2005	WALTON, J. Rodney ; et al.	
	0216	US20080285670	11-20-2008	WALTON; J. Rodney;. et al.	

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<i>Complete If Known</i>		
				Application Number	10/693,429	
				Filing Date	2003-10-23	
				First Named Inventor	WALTON; J. Rodney. et al.	
				Art Unit	2467	
				Examiner Name	SMITH, MARCUS	
Sheet	12	of	20	Attorney Docket No: 030417		

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	0217	US20020147953	10-10-2002	CATREUX, Severine ; et al.	
	0218	US20020122381	09-05-2002	WU, Shiquan; et al.	
	0219	US20020080735	06-27-2002	HEATH, Robert W. et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	0220	EP0772329	05-07-1997	DIGI MEDIA VISION LTD [GB]		<input type="checkbox"/>
	0221	EP0895387	02-03-1999	THOMSON BRANDT GMBH [DE]		<input type="checkbox"/>
	0222	EP0993211	04-12-2000	SONY INT EUROP GMBH [DE]		<input type="checkbox"/>
	0223	EP1143754	10-10-2001	SONY INT EUROP GMBH [DE]		<input type="checkbox"/>
	0224	JP11205273	07-30-1999	TOSHIBA CORP		<input type="checkbox"/>
	0225	WO01076110	10-11-2001	QUALCOMM INC [US]		<input type="checkbox"/>
	0226	CN1234661	11-10-1999	SONY INTERNATIONAL EUROP CO LT [DE]		<input type="checkbox"/>
	0227	CN1308794	08-15-2001	ARRAYCOMM INC [US]		<input type="checkbox"/>
	0228	JP1132027	05-24-1989	TOSHIBA CORP		<input type="checkbox"/>
	0229	JP1141159	02-12-1999	NIPPON TELEGR & TELEPH CORP		<input type="checkbox"/>
	0230	JP2002176379	06/21/2002	JAPAN TELECOM CO LTD		<input type="checkbox"/>

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>			<i>Complete If Known</i>		
			Application Number	10/693,429	
			Filing Date	2003-10-23	
			First Named Inventor	WALTON; J. Rodney. et al.	
			Art Unit	2467	
			Examiner Name	SMITH, MARCUS	
Sheet	13	of	20	Attorney Docket No: 030417	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number* Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	0231	JP8274756	10-18-1996	TOSHIBA CORP		<input type="checkbox"/>
	0232	WO199809381	03-05-1998	UNIV LELAND STANFORD JUNIOR [US]		<input type="checkbox"/>
	0233	WO199830047	07-09-1998	ARRAYCOMM INC [US]		<input type="checkbox"/>
	0234	WO2002003557	01-10-2002	IOSPAN WIRELESS INC [US]		<input type="checkbox"/>
	0235	WO2002069523	09-06-2002	MAGNOLIA BROADBAND INC [US]		<input type="checkbox"/>
	0236	JP2991167	03-09-1999	MINIBISHI ELECTRIC CORP		<input type="checkbox"/>
	0237	DE19951525A1	06-07-2001	SIEMENS AG [DE]		<input type="checkbox"/>
	0238	EP0755090A1	01-22-1997	NORTHERN TELECOM LTD [CA]		<input type="checkbox"/>
	0239	EP0805568A1	11-05-1997	TRW INC [US]		<input type="checkbox"/>
	0240	EP0951091A2	10-20-1999	LUCENT TECHNOLOGIES INC [US]		<input type="checkbox"/>
	0241	EP0991221A2	04-05-2000	LUCENT TECHNOLOGIES INC [US]		<input type="checkbox"/>
	0242	EP1087545A1	03-28-2001	UNIV SINGAPORE [SG]		<input type="checkbox"/>
	0243	EP1117197A2	07-18-2001	LUCENT TECHNOLOGIES INC [US]		<input type="checkbox"/>
	0244	EP1170879A1	01-09-2002	MATSUSHITA ELECTRIC IND CO LTD [JP]		<input type="checkbox"/>
	0245	EP1175022A2	01-23-2002	SAMSUNG ELECTRONICS CO LTD [KR]		<input type="checkbox"/>
	0246	EP1207635A1	05-22-2002	LUCENT TECHNOLOGIES INC [US]		<input type="checkbox"/>
	0247	EP1207645A1	05-22-2002	LUCENT TECHNOLOGIES INC [US]		<input type="checkbox"/>

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. † Applicant's unique citation designation number (optional). ‡ See Kinds of Documents of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. § Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). ¶ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \*Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. † Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<i>Complete If Known</i>		
		<b>Application Number</b>	10/693,429	
		<b>Filing Date</b>	2003-10-23	
		<b>First Named Inventor</b>	WALTON; J. Rodney. et al.	
		<b>Art Unit</b>	2467	
		<b>Examiner Name</b>	SMITH, MARCUS	
<b>Sheet</b>	<b>14</b>	<b>of</b>	<b>20</b>	<b>Attorney Docket No:</b> 030417

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number* Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	0248	EP1223702A1	07-17-2002	LUCENT TECHNOLOGIES INC [US].		<input type="checkbox"/>
	0249	EP1241824A1	09-18-2002	ERICSSON TELEFON AB L M [SE].		<input type="checkbox"/>
	0250	GB2300337A	10-30-1996	ERICSSON GE MOBILE COMMUNICAT [US].		<input type="checkbox"/>
	0251	JP10209956A	08-07-1998	NIPPON TELEGRAPH & amp. et al.		<input type="checkbox"/>
	0252	JP11069431A	03-09-1999	MITSUBISHI ELECTRIC CORP.		<input type="checkbox"/>
	0253	JP11074863A	03-16-1999	THOMSON BRANDT GMBH.		<input type="checkbox"/>
	0254	JP11163823A	06-18-1999	VICTOR COMPANY OF JAPAN.		<input type="checkbox"/>
	0255	JP2001044930A	02-16-2001	MATSUSHITA ELECTRIC IND CO LTD.		<input type="checkbox"/>
	0256	JP2001186051A	07-06-2001	TOSHIBA CORP.		<input type="checkbox"/>
	0257	JP2001217896	08-10-2001	MATSUSHITA ELECTRIC WORKS LTD		<input type="checkbox"/>
	0258	JP2001237751A	08-31-2001	LUCENT TECHNOLOGIES INC.		<input type="checkbox"/>
	0259	JP6501139T	01-27-1994	ERICSSON GE MOBILE COMMUNICATIONS HOLDING INC		<input type="checkbox"/>
	0260	JP9307526A	11-28-1997	MITSUBISHI ELECTRIC CORP.		<input type="checkbox"/>
	0261	RU2152132C1	06-27-2000	J NII SVJAZI. et al.		<input type="checkbox"/>
	0262	RU2158479C2	10-27-2000	AL KATEL N V [NL].		<input type="checkbox"/>

**EXAMINER SIGNATURE****DATE CONSIDERED**

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. † Applicant's unique citation designation number (optional). ‡ See Kinds of Documents of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. § Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). ¶ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \*Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. † Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<i>Complete if Known</i> <b>Application Number</b> 10/693,429 <b>Filing Date</b> 2003-10-23 <b>First Named Inventor</b> WALTON; J. Rodney. et al. <b>Art Unit</b> 2467 <b>Examiner Name</b> SMITH, MARCUS	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>					
(Use as many sheets as necessary)					
<b>Sheet</b>	<b>15</b>	<b>of</b>	<b>20</b>	<b>Attorney Docket No:</b> 030417	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number <sup>2</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	0263	RU2201034C2	03-20-2003	ERICSSON TELEFON AB L M [SE].		<input type="checkbox"/>
	0264	WO0011823A1	03-02-2000	RADIX TECHNOLOGIES INC [US]. et al.		<input type="checkbox"/>
	0265	WO0036764A2	06-22-2000	NOKIA NETWORKS OY [FI]. et al.		<input type="checkbox"/>
	0266	WO0105067A1	01-18-2001	SAMSUNG ELECTRONICS CO LTD [KR].		<input type="checkbox"/>
	0267	WO0180510A1	10-25-2001	AWARE INC [US].		<input type="checkbox"/>
	0268	WO0182521A2	11-01-2001	QUALCOMM INC [US].		<input type="checkbox"/>
	0269	WO0197400A2	12-20-2001	QUALCOMM INC [US].		<input type="checkbox"/>
	0270	WO0201732A2	01-03-2002	NOKIA CORP [FI]. et al.		<input type="checkbox"/>
	0271	WO02060138A2	08-01-2002	QUALCOMM INC [US].		<input type="checkbox"/>
	0272	WO02062002A1	08-08-2002	QUALCOMM INC [US].		<input type="checkbox"/>
	0273	WO02069590A1	09-06-2002	QUALCOMM INCORPORATED [US].		<input type="checkbox"/>
	0274	WO02073869A1	09-19-2002	ERICSSON TELEFON AB L M [SE]. et al.		<input type="checkbox"/>
	0275	WO02078211A2	10-03-2002	QUALCOMM INC [US].		<input type="checkbox"/>
	0276	WO0225853A2	03-28-2002	IOSPAN WIRELESS INC [US].		<input type="checkbox"/>
	0277	WO03010984A1	02-06-2003	NORTEL NETWORKS LTD [CA].		<input type="checkbox"/>
	0278	WO03019984A1	03-06-2003	COMMISSARIAT ENERGIE ATOMIQUE [FR]. et al.		<input type="checkbox"/>
	0279	WO03034646A2	04-24-2003	NORTEL NETWORKS LTD [CA].		<input type="checkbox"/>

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. †Applicant's unique citation designation number (optional). ‡ See Kinds of Documents of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. § Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). ¶ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \*\*Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. ††Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<i>Complete If Known</i>		
		Application Number	10/693,429	
		Filing Date	2003-10-23	
		First Named Inventor	WALTON; J. Rodney. et al.	
		Art Unit	2467	
		Examiner Name	SMITH, MARCUS	
Sheet	16	of	20	Attorney Docket No: 030417

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number <sup>2</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	0280	WO200171928	09-27-2001	QUALCOMM INC [US]		<input type="checkbox"/>
	0281	WO2004039011A2	05-06-2004	QUALCOMM INC [US].		<input type="checkbox"/>
	0282	WO9530316A1	11-09-1995	MOTOROLA INC [US].		<input type="checkbox"/>
	0283	WO9532567A1	11-30-1995	SPECTRIX CORP [US].		<input type="checkbox"/>
	0284	WO9622662A1	07-25-1996	ARRAYCOMM INC [US].		<input type="checkbox"/>
	0285	WO9719525A1	05-29-1997	MOTOROLA INC [US].		<input type="checkbox"/>
	0286	WO99016214	04-01-1999	COMMW SCIENT IND RES ORG [AU] ET AL.		<input type="checkbox"/>
	0287	WO9944379A1	09-02-1999	ERICSSON TELEFON AB L M [SE].		<input type="checkbox"/>
	0288	WO9957820	11-11-1999	ARRAYCOMM INC [US]		<input type="checkbox"/>
	0289	WO04039022	05-06-2004	QUALCOMM INC [US]		<input type="checkbox"/>
	0290	WO96035268	11-07-1996	QUALCOMM INC [US]		<input type="checkbox"/>

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T <sup>2</sup>
	0291	3GPP2 TIA/EIA/IS-2000-2-A, "Physical Layer Standard for cdma2000 Spread Spectrum Systems", (November 19, 1999).				
	0292	ALAMOUTI, S.M., "A Simple Transmit Diversity Technique for Wireless Communications," IEEE Journal on Select Areas in Communications, Vol.16, No.8, October 1998, pgs. 1451-1458.				

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds of Documents of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO		<i>Complete If Known</i>		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Application Number</b>	10/693,429	
		<b>Filing Date</b>	2003-10-23	
		<b>First Named Inventor</b>	WALTON; J. Rodney. et al.	
		<b>Art Unit</b>	2467	
		<b>Examiner Name</b>	SMITH, MARCUS	
<b>Sheet</b>	17	<b>of</b>	20	<b>Attorney Docket No:</b> 030417

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T2	
	0293	B. HASSIBI, et al. "High-Rate Codes that are Linear in Space and Time," LUCENT Technologies, Murray Hill, NY (USA), Aug. 22, 2000, (pp. 1-54).		
	0294	CHEN, K.C. et al., "Novel Space-Time Processing of DS/CDMA Multipath Signal," IEEE 49th, Vehicular Technology Conference, Houston, Texas, May 16-20, 1999, pgs. 1809-1813.		
	0295	CHOI, R. et al., "MIMO Transmit Optimization for Wireless Communication Systems," Proceedings of the First IEEE International workshops on Electronic Design, pgs. 1-6, Piscataway, New Jersey, January 29-31 (2002).		
	0296	ETSI TS 101 761-1 v1.3.1, "Broadband Radio Access Networks (BRAN); HIPERLAN Type 2; Data Link Control (DLC) Layer; Part 1: Basic Data Transport Functions," ETSI Standards, European Telecommunications Standards Institute BR (V131), pgs. 1-88 (2001-12).		
	0297	FUJII, M.: "Pseudo-Orthogonal Multibeam-Time Transmit Diversity for OFDM-CDMA" pgs.222-226 (2002).		
	0298	GAO, et al. "On implementation of Bit-Loading Algorithms for OFDM Systems with Multiple-Input Multiple Output," VTC 2002-Fall. 2002 IEEE 56th. Vehicular Technology Conference Proceedings. Vancouver, Canada, Sept. 24-28, 2002, IEEE Vehicular Technology Con.		
	0299	HAUSTEIN, T. et al.: "Performance of MIMO Systems with Channel Inversion," IEEE 55th Vehicular Technology Conference, Birmingham, Alabama, May 6-9 (2002), pgs. 35-39.		
	0300	HAYASHI, K, A New Spatio-Temporal Equalization Method Based On Estimated Channel Response, Sept. 2001, IEEE Transaction on Vehicular Technology, vol. 50, Issue 5, pp. 1250-1259.		
	0301	HONG, D. K. et al.: "Robust Frequency Offset Estimation for Pilot Symbol Assisted Packet CDMA with MIMO Antenna Systems," IEEE Communications Letters, vol. 6, no. 6, pgs. 262-264 (June 2002).		
	0302	IEEE Std 802.11a-1999 (Supplement to IEEE Std 801.11-1999) "Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: High-Speed physical Layer in the 5GHZ Band", pgs. 1-90, September 1999.		
	0303	JOHAM, M. et al.: "Symbol Rate Processing for the Downlink of DS-CDMA Systems", IEEE Journal on Selected Areas in Communications, Vol. 19, No. 1, paragraphs 1, 2;		

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \*Applicant's unique citation designation number (optional). \*See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. \*Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). \*For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \*Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. \*Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<i>Complete If Known</i> <b>Application Number</b> 10/693,429 <b>Filing Date</b> 2003-10-23 <b>First Named Inventor</b> WALTON; J. Rodney. et al. <b>Art Unit</b> 2467 <b>Examiner Name</b> SMITH, MARCUS	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>					
<b>Sheet</b>	<b>18</b>	<b>of</b>	<b>20</b>	<b>Attorney Docket No:</b> 030417	

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T2
		IEEE Service Center, Piscataway, US, (2001-01-01), XP011055296, ISSN: 0733-8716.			
	0304	JOHN A.C. Bingham, "Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come," IEEE Communications Magazines, May 1990 (pgs. 5-13).			
	0305	JONGREN et al., "Utilizing Quantized Feedback Information in Orthogonal Space-Time Block Coding," 2000 IEEE Global Telecommunications Conference, 2(4): 995-999, November 27, 2000.			
	0306	KIESSLING, et al., "Short-Term and Long Term Diagonalization of Correlated MIMO Channels with Adaptive Modulation," IEEE Conference, vol. 2, (2002-09-15), pgs. 593-597.			
	0307	L. DENEIRE, et al. "A LOW COMPLEXITY ML CHANNEL ESTIMATOR FOR OFDM," PROC IEEE ICC JUNE 2001 pgs. 1461-1465.			
	0308	LI LIHUA, et al., "A Practical Space-Frequency Block Coded OFDM Scheme for Fast Fading Broadband Channels" 13th IEEE International Symposium on Personal Indoor and Mobile Radio Communications. PIMRC 2002. 15-18, September, 2002, pages 212-216, vol. 1, XP002280831.			
	0309	M.A. KOUSA, et al., "Multichannel adaptive system," IEE PROCEEDINGS-I, Vol. 140, No. 5, October 1993, pages 357-364.			
	0310	MIYASHITA, et al., "High Data-Rate Transmission with Eigenbeam-Space Division Multiplexing (E-SDM) in a MIMO Channel," VTC 2002-Fall. 2002 IEEE 56th. Vehicular Technology Conference Proceedings. Vancouver, Canada, Sept. 24-28, 2002, IEEE Vehicular Technology.			
	0311	P.W. WOLNIANSKY, et al. "V-BLAST: An Architecture for Realizing Very High Data Rates Over the Rich-Scattering Wireless Channel," LUCENT Technologies, Holmdel, NJ..			
	0312	PAUTLER, J. et al.: "On Application of Multiple-Input Multiple-Output Antennas to CDMA Cellular Systems," IEEE 54th Vehicular Technology Conference Proceedings, Atlantic City, New Jersey, October 7-11 (2001), pgs. 1508-1512.			
	0313	TARIGHAT, A. et al. "Performance Analysis of Different Algorithms for cdma2000 Antenna Array System and a New Multi User Beamforming (MUB) Algorithm", Wireless Communications and Networking Conference, Vol. 1, pgs. 409-414, Sep. 23, 2000.			
	0314	THEON, S. et al.: "Improved Adaptive Downlink for OFDM/CDMA-Based Wireless Networks," IEEE VTS 53rd Vehicular Technology Conference, pgs. 707-711, Rhodes,			

EXAMINER SIGNATURE

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \*Applicant's unique citation designation number (optional). \* See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. \*Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). \* For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \*Kind of language by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. \*Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO		<i>Complete if Known</i>		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Application Number</b>	10/693,429	
		<b>Filing Date</b>	2003-10-23	
		<b>First Named Inventor</b>	WALTON; J. Rodney. et al.	
		<b>Art Unit</b>	2467	
		<b>Examiner Name</b>	SMITH, MARCUS	
<b>Sheet</b>	<b>19</b>	<b>of</b>	<b>20</b>	<b>Attorney Docket No:</b> 030417

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T2	
		Greece, May 6-9, (2001).		
	0315	TUJKOVIC, D.: "High bandwidth efficiency space-time turbo coded modulation", Institute of Electrical and Electronics Engineers, ICC 2001. 2001 IEEE International Conference on Communications, Conference Record, pgs. 1104-1109, Helsinki, Finland, June 11-14 (2001).		
	0316	VAN ZELST, A. et al.: "Space Division Multiplexing (SDM) for OFDM Systems," IEEE 51st Vehicular Technology Conference Proceedings, pgs. 1070-1074, Tokyo, Japan, May 15-18 (2000).		
	0317	WARNER, W. et al.: "OFDM/FM Frame Synchronization for Mobile Radio Data Communication", IEEE Transactions on Vehicular Technology, Vol. 42, No. 3, pgs. 302-313.		
	0318	YOSHIKI, T., et al., "A Study on Subcarrier Adaptive Demodulation System using Multilevel Transmission Power Control for OFDM/FDD System," The Institute of Electronics, Information and Communications Engineers general meeting, lecture collection, Japan, March 7, 2000, Communication 1, page 400.		
	0319	DAE-KO Hong, Young-Jo Lee, Daesik Hong, and Chang-Eon Kang. "Robust frequency offset estimation for pilot symbol assisted packet CDMA with MIMO antenna systems." Communications Letters. IEEE. June 2002.		
	0320	S.W. WALES, A MIMO technique within the UTRA TDD standard 06/22/05.		

**EXAMINER SIGNATURE****DATE CONSIDERED**

\*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* Applicant's unique citation designation number (optional).  
 See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. \* Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3).  
 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \* Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. \* Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.